

What is claimed is:

1. A sugar chain-altered antibody (anti-HM1.24 antibody) against HM1.24 antigen.
2. The antibody (anti-HM1.24 antibody) against HM1.24 antigen according to claim 1 in which the alteration of sugar chains resulted in enhanced antibody-dependent cellular cytotoxicity (ADCC).
3. The antibody according to claim 1 or 2 in which said antibody is a monoclonal antibody.
4. The antibody according to claim 1 or 2 in which said antibody is a chimeric antibody.
5. The antibody according to claim 1 or 2 in which said antibody is a humanized antibody.
6. The antibody according to any one of claims 1-5 having a sugar chain that does not contain α -1,6 core fucose.
7. The antibody according to any one of claims 1-5 having a sugar chain that contains a bisecting N-acetylglucosamine (GlcNAc) structure.
8. The antibody according to any one of claims 1-7 having a sugar chain that does not contain α -1,6 core fucose and a sugar chain that contains a bisecting N-acetylglucosamine (GlcNAc) structure.
9. An antibody composition comprising anti-HM1.24 antibody having a fucose-free sugar chain, wherein the relative ratio of the fucose-free sugar chain is 30% or more.
10. A method of producing said antibody according to claim 6 which method comprises culturing cells deficient in fucose-adding ability having introduced therein a nucleic acid encoding an antibody (anti-HM1.24 antibody) against HM1.24 antigen, and harvesting said antibody from said culture.
11. A method of producing said antibody according to claim 7 which method comprises culturing a host cell having introduced therein a nucleic acid encoding N-acetylglucosaminyl transferase III (GnTIII), and

harvesting said antibody from said culture.

12. A method of producing said antibody according to claim 8 which method comprises culturing cells deficient in fucose-adding ability having introduced
5 therein a nucleic acid encoding N-acetylglucosaminyl transferase III (GnTIII), and harvesting said antibody from said culture.